GENETICAL RESEARCH

EDITORIAL BOARD

CHARLOTTE AUERBACH ARTHUR CHOVNICK W. HAYES
BRUCE HOLLOWAY D. ISH-HOROWICZ MARY F. LYON
ANNE McLAREN M. VAN MONTAGU R. NÖTHIGER J. PAUL
W. J. PEACOCK PETER A. PETERSON R. H. PRITCHARD
R. RILEY A. ROBERTSON N. S. WILLETTS

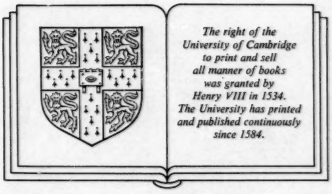
EXECUTIVE EDITOR

E. C. R. REEVE

ASSISTANT EXECUTIVE EDITORS

DAVID J. FINNEGAN
TRUDY F. C. MACKAY

Volume 45. 1985



CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE
LONDON NEW YORK NEW ROCHELLE
MELBOURNE SYDNEY

PUBLISHED BY

THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE

The Pitt Building, Trumpington Street, Cambridge CB2 1RP
32 East 57th Street, New York, NY 10022
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

© Cambridge University Press, 1985

Printed in Great Britain by the University Press, Cambridge

CONTENTS

No. 1 (February 1985)

YAGIL, EZRA *and* SHTROMAS, INNA. Rec-mediated recombinational activity of two adjacent Chi elements in bacteriophage lambda *page* 1

DEQUARD-CHABLAT, MICHELLE. Ribosomal suppressors in *Podospora anserina*: evidence for two new loci by means of a new screening procedure 9

ANDERSON, ROGER W. *and* YOUNGMAN, PHILIP J. Complementation of *npf* mutations in diploid amoebae of *Physarum polycephalum*: the basis for a general method of complementation analysis at the amoebal stage 21

MAGUIRE, MARJORIE P. Evidence on the nature and complexity of the mechanism of chiasma maintenance in maize 37

FALK, RAPHAEL, BAKER, SHULA *and* RAHAT, ANA. Segregation of centric *Y*-autosome translocations in *Drosophila melanogaster*. I. Segregation determinants in males 51

FALK, RAPHAEL, RAHAT, ANA *and* BAKER, SHULA. Segregation of centric *Y*-autosome translocations in *Drosophila melanogaster*. II. Segregation determinants in females 81

FORRESTER, LESLEY M. *and* ANSELL, J. D. Parental influences on *X* chromosome expression 95

STOLC, V. Polymorphism of lactate dehydrogenase B subunit in rat erythrocytes 101

SILVER, LEE M., CISEK, LOIS, JACKSON, CATHERINE *and* LUKRALLE, DEBORAH. A new spontaneous mutation at the tufted locus within a mouse *t* haplotype 107

BOOK REVIEWS 113

BOOKS RECEIVED 117

No. 2 (April 1985)

MOORE, R. J. *and* KRISHNAPILLAI, V. Transcriptional organization of the Tra2 region controlling conjugational transfer of the narrow host range *Pseudomonas aeruginosa* plasmid R91-5 *page* 119

PIETRO, MICHAEL E. *and* HART, GARY, E. The genetic control of triosephosphate isomerase of hexaploid wheat and other Triticeae species 127

NARISE, SUMIKO. Activity differences between acid phosphatase allozyme variants of *Drosophila virilis*: Differences in intracellular localization of allozymes 143

DUTTON, F. LEE *and* KRIDER, HALLIE M. Expression and amplification of the genes for ribosomal RNA in bobbed mutants of *Drosophila melanogaster* 155

MARKOVAC, JASNA *and* ERICKSON, ROBERT P. The genetics of hormone-induced cyclic AMP production and Phospholipid *N*-methylation in inbred strains of mice 167

TAKAHATA, NAOYUKI. Introgression of extranuclear genomes in finite populations: nucleo-cytoplasmic incompatibility 179

MOORE, R. J. *and* KRISHNAPILLAI, V. Genome organization of the *Pseudomonas aeruginosa* narrow host range plasmid R91-5 determined by deletion and cloning analysis 195

RICKARDS, GEOFFREY K. Metaphase position and orientation of an interchange quadrivalent of *Allium triquetrum*. II. Changes in position with changes in percentage alternate orientation 199

JOHNSTON, P. G. *and* ROBINSON, E. S. Glucose-6-phosphate dehydrogenase expression in heterozygous kangaroo embryos and extra-embryonic membranes 205

Abstracts of papers presented on 27 and 28 November 1984 209

Abstracts of papers presented on 29 and 30 November 1984 219

BOOK REVIEWS 229

No. 3 (June 1985)

RODRIGUES, SERGIO A. *and* ROSSI, ANTONIO. Effect of phosphate levels on the synthesis of acid phosphatases (EC 3.1.3.2) in *Neurospora crassa* *page* 239

NADEAU, JOSEPH H., PHILLIPS, SANDRA J. *and* EGOROV, IGOR K. Recombination between the t^6 complex and linked loci in the house mouse 251

MISHRA, N. C., HINNANT, KATHRYN *and* CASON, EMILY. New ara-C resistant mutants of the Chinese hamster ovary cells 265

MORTON, N. E., MACLEAN, C. J. *and* LEW, R. Tests of hypotheses on recombination frequencies 279

RISKA, BRUCE, RUTLEDGE, J. J. *and* ATCHLEY, WILLIAM, R. Covariance between direct and maternal genetic effects in mice, with a model of persistent environmental influences 287

HOEKSTRA, ROLF F., BIJLSMA, R. *and* DOLMAN, A. J. Polymorphism from environmental heterogeneity: models are only robust if the heterozygote is close in fitness to the favoured homozygote in each environment 299

WARD, R. D. *and* SKIBINSKI, D. O. F. Observed relationships between protein heterozygosity and protein genetic distance and comparisons with neutral expectations 315

GADÓ, ISTVÁN, BOKÁNY, ANTÓNIA *and* SZVOBODA, GYÖRGY. Genetic experiments on sisomicin production by *Micromonospora rosea* 341

BOOK REVIEWS 345

BOOKS RECEIVED 351

INDEX 353